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Records of Limoniidae and Pediciidae (Diptera) from Armenia, with the first Armenian checklist of these families

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Abstract

Records of species of the families Limoniidae and Pediciidae are presented from Armenia. A total of 38 species of Limoniidae and four species of Pediciidae are listed. Of these, 27 species of Limoniidae and one species of Pediciidae represent the first records from Armenia. The first checklist of these families from Armenia is appended, containing 77 species of Limoniidae and six species of Pediciidae.

Keywords

Diptera, Limoniidae, Pediciidae, distributions, first records, checklist, Armenia

Introduction

Compared to some European countries, Transcaucasia (Georgia, Armenia, Azerbaijan) is among less-investigated territories, as far as the families Limoniidae and Pediciidae are concerned. The territory occupies the southern macro-slopes of the Great Caucasus and the mountains and plateaux as far south as the Turkish and Iranian borders.

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Savchenko (e.g. 1971, 1972a,b, 1973, 1974, 1976a,b, 1978a,b, 1979, 1981, 1983, and others) contributed considerably to the knowledge of the local fauna and summarized his results in a comprehensive study (Savchenko 1989) dealing with the fauna of the former USSR. Faunal records from all relevant publications are registered in the Catalogue of the Craneflies of the World (Oosterbroek 2015). A total of 50 species of Limoniidae and five species of Pediciidae have been previously listed from Armenia.

The material we present in this paper was mostly collected in the north-western part of Armenia during a recent sampling campaign from August 26 to September 4, 2015. Thirty-eight species of Limoniidae and four species of Pediciidae were identified from this material, of which 27 species of Limoniidae and one species of Pediciidae represent the first records from Armenia. Seven species of Limoniidae and one species of Pediciidae are new to the whole Transcaucasia. In addition, we append the first checklist of Limoniidae and Pediciidae from Armenia, containing 77 species of Limoniidae and six species of Pediciidae.

Material and methods

Samples were collected by sweep-netting from vegetation along streams and lakes by the first, third, and fourth authors (JO, PM, LH) and preserved in 75% ethanol. A list of 33 sampling sites, with coordinates and altitudes, is given in Table 1, and the locations of the sites are shown in Map 1. The material is deposited in the collection of the second author (JS) who also identified the species. Some specimens were dried and mounted on points in the course of the study. The male terminalia, if necessary, were prepared by boiling in a solution of 10% KOH and preserved in glycerine in a sealed plastic tube pinned with the appropriate specimen after examination. Classification, nomenclature, and distribution for individual species are given as summarized by Oosterbroek (2015).

Results

Faunistic records

Family Limoniidae
Subfamily Limnophilinae

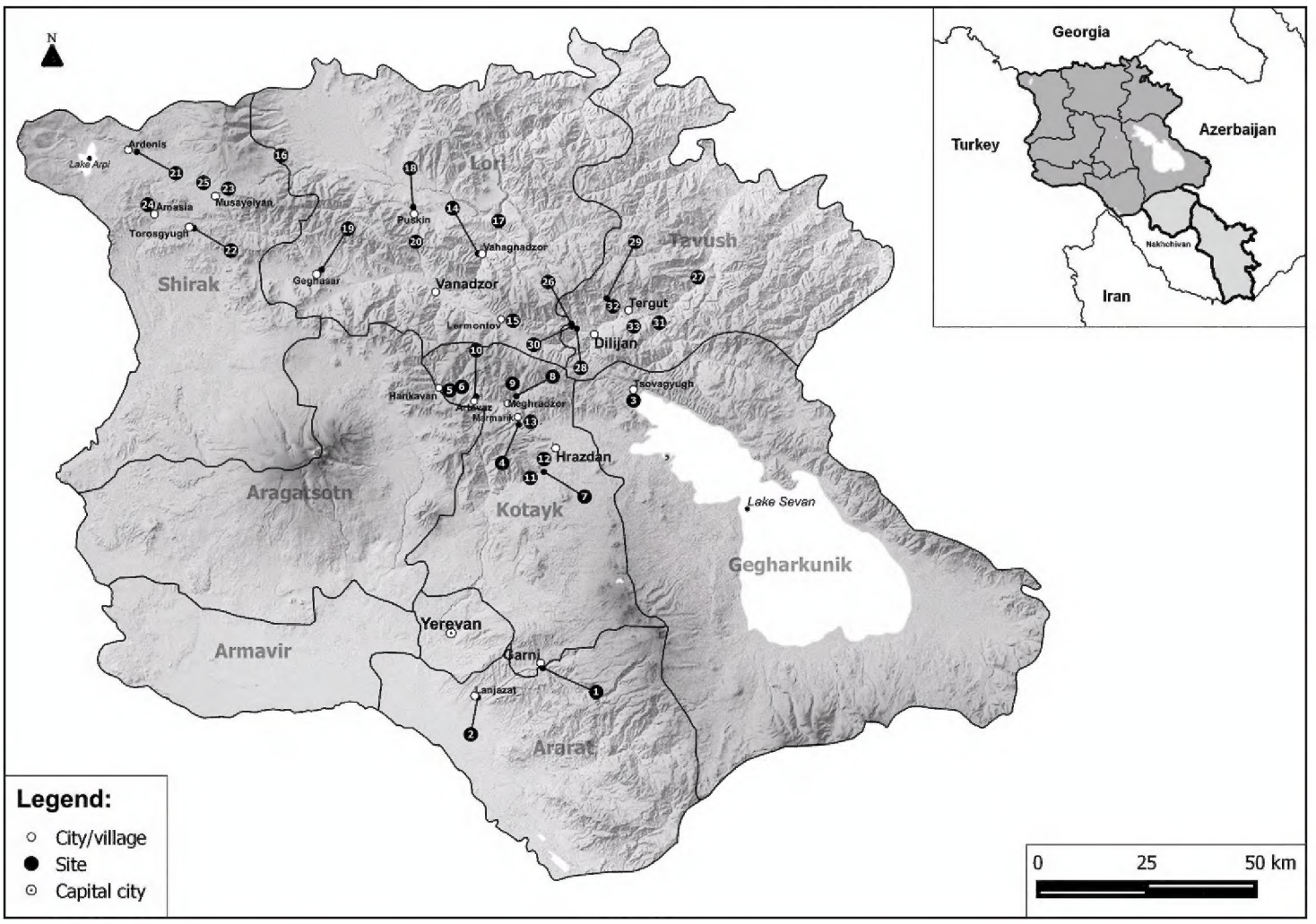
Paradelphomyia (*Oxyrhiza*) *brevifurca* Savchenko, 1976

Material examined. Tavush: below Jukhtakvank Monastery, (site 26), 29.viii.2015, 1 ♂.

Distribution. So far only known from North Caucasus and Georgia. First record from Armenia.

Table 1. List of sampling sites.

Site No.	site name (province, short description of locality)	latitude/ N	longitude/ E	altitude/ m a.s.l.
1	Ararat Province: Garni, below Garni Temple, Azat River	40°06'39.4"	44°43'45.3"	1273
2	Ararat Province: nr. Lanjazat, Azat River	40°03'27.0"	44°34'38.3"	976
3	Gegharkunik Province: Tsovagyugh, nr. Sevan Lake	40°37'01.8"	44°57'44.2"	1930
4	Kotayk Province: between Marmarik and Aghavnadzor, tributary of Marmarik River	40°33'52.0"	44°40'09.1"	1872
5	Kotayk Province: E of Hankavan, Marmarik River	40°38'04.7"	44°29'19.4"	1974
6	Kotayk Province: E of Hankavan, Marmarik River	40°38'09.2"	44°32'23.2"	1913
7	Kotayk Province: Hrazdan Sewage Treatment Plant, Hrazdan River	40°29'12.8"	44°43'55.9"	1705
8	Kotayk Province: Meghradzor, behind railway, tributary of Marmarik River	40°37'12.7"	44°40'18.3"	1825
9	Kotayk Province: Meghradzor, below "Gold Mine", tributary of Marmarik River	40°37'53.0"	44°40'17.5"	1870
10	Kotayk Province: near Artavaz, Marmarik River	40°36'49.9"	44°34'18.2"	1849
11	Kotayk Province: N of Solak, Hrazdan River	40°28'19.7"	44°42'42.2"	1567
12	Kotayk Province: SW of Hrazdan Reservoir, tributary of Hrazdan River	40°30'10.2"	44°44'22.4"	1718
13	Kotayk Province: between Marmarik and Aghavnadzor, Marmarik River	40°34'29.3"	44°41'02.2"	1760
14	Lori Province: W of Vahagnadzor, Zamanlu River	40°53'07.0"	44°34'39.0"	1092
15	Lori Province: Lermontov, tributary of Aghstev River (Fig. 2)	40°45'24.6"	44°38'42.0"	1853
16	Lori Province: Meghvahovit, road H31, small steppe brook	41°03'59.9"	44°05'44.2"	1949
17	Lori Province: N of Dzoraget, tributary of Pambak River	40°56'52.7"	44°37'37.2"	1030
18	Lori Province: N of Pushkin, tributary of Dzoraget River	40°58'04.8"	44°24'49.7"	1485
19	Lori Province: NE of Geghasar, Pambak River	40°51'17.4"	44°11'40.8"	1627
20	Lori Province: road H23 to Pushkin Pass, small brook	40°54'22.9"	44°25'33.3"	1839
21	Shirak Province: between Aghvoik and Ardenis, tributary of Akhurian River	41°04'21.2"	43°44'44.8"	2052
22	Shirak Province: E of Torosgyugh, tributary of Akhurian River	40°55'55.0"	43°52'45.3"	1885
23	Shirak Province: NE of Musayelyan, tributary of Akhurian River	41°00'13.2"	43°57'24.9"	2195
24	Shirak Province: NW of Amasia, tributary of Akhurian River (Fig. 1)	40°58'20.5"	43°46'06.9"	1987
25	Shirak Province: Zuygaghbyur, meanders of tributary of Akhurien River	41°00'56.1"	43°54'18.8"	2034
26	Tavush Province: below Jukhtakvank Monastery	40°45'11.8"	44°48'25.7"	1411
27	Tavush Province: car park on road M4, tributary of Aghstev River	40°50'32.0"	45°06'56.8"	760
28	Tavush Province: W of Dilijan, Bldan River (Fig. 3)	40°44'49.1"	44°49'03.5"	1354
29	Tavush Province: E of Haghartsin, tributary of Aghstev River	40°48'09.3"	44°53'43.7"	1382
30	Tavush Province: E of Matosavank Monastery	40°44'59.6"	44°48'29.2"	1392
31	Tavush Province: N of Gosh, Getik River	40°45'16.5"	45°01'18.4"	940
32	Tavush Province: NW of Teghut, tributary of Aghstev River	40°47'15.2"	44°54'58.0"	1197
33	Tavush Province: vicinity of Parz Lake	40°44'57.7"	44°57'33.3"	1376



Map 1. Map showing all sampling sites in Armenia.

***Paradelphomyia* (*Oxyrhiza*) *fuscula* (Loew, 1873)**

Material examined. Kotayk: between Marmarik and Aghavnadzor, tributary of Marmarik R. (site 4), 27.viii.2015, 1 ♂.

Distribution. Europe; Iran. First record from Armenia and Transcaucasia.

***Paradelphomyia* (*Oxyrhiza*) *senilis* (Haliday, 1833)**

Material examined. Lori: N of Dzoraget, tributary of Pambak R. (site 17), 1.ix.2015, 1 ♂.

Distribution. Europe; Azerbaijan, Turkey; Kirghizia. First record from Armenia.

***Phylidorea* (*Phylidorea*) *ferruginea* (Meigen, 1818)**

Material examined. Kotayk: Hrazdan Sewage Treatment Plant, Hrazdan R. (site 7), 27.viii.2015, 1 ♂ 3 ♀.

Distribution. Europe; Azerbaijan, Turkey, Israel; Central Asia, Mongolia; West Siberia. First record from Armenia.

Figures 1–3. Sampling sites with highest species diversity. **1** Site No. 24 - NW of Amasia, tributary of Akhurian River (9 species, including *Erioconopa symplectoides*, *Molophilus* (*M.*) *pleuralis*, *Ormosia* (*O.*) *hederae*, and *Limonia macrostigma*) **2** Site No. 15 - Lermontov, tributary of Aghstev River (8 species, including *Hoplolabis* (*P.*) *iranica*, *O.* (*O.*) *hederae*, *Rhabdomastix* (*R.*) *filata*, *Dicranomyia* (*D.*) *melanantha*, *L. macrostigma*, and *L. stigma*) **3** Site No. 28 - W of Dilijan, Bldan River (8 species, including *Pseudolimnophila* (*P.*) *melanura*, *Antocha* (*A.*) *vitripennis*, *Dicranomyia* (*D.*) *pontica*, and *Limonia hercegovinae*).

Pseudolimnophila (*Pseudolimnophila*) *melanura* Savchenko, 1984

Material examined. Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 6 ♂ 3 ♀.

Distribution. So far only known from Tajikistan. First record from Armenia and Transcaucasia; first record since original description.

Remark. Due to syntopic occurrence in Armenia of *P.* (*P.*) *melanura* and *P.* (*P.*) *sepium* the former cannot be considered a subspecies of the latter, as suggested by Savchenko et al. (1992).

Pseudolimnophila (*Pseudolimnophila*) *sepium* (Verrall, 1886)

Material examined. Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♂.

Distribution. Europe; Morocco; Georgia, Azerbaijan, Turkey; Central Asia. First record from Armenia.

Subfamily Chioneinae

Erioconopa symplectoides (Kuntze, 1914)

Material examined. Kotayk: Hrazdan Sewage Treatment Plant, Hrazdan R. (site 7), 27.viii.2015, 1 ♂; Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 2 ♀; Shirak: Zuygaghbyur, meanders of tributary of Akhurien R. (site 25), 2.ix.2015, 3 ♂ 1 ♀; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 5 ♂; Shirak: between Aghvoik and Ardenis, tributary of Akhurian R. (site 21), 3.ix.2015, 1 ♂ 1 ♀; Shirak: E of Torosgyugh, tributary of Akhurian R. (site 22), 3.ix.2015, 4 ♂ 1 ♀; Lori: NE of Geghasar, Pambak R. (site 19), 3.ix.2015, 2 ♂ 1 ♀.

Distribution. Europe, except for northern countries; Morocco; Georgia, Azerbaijan, Turkey. First records from Armenia.

Erioptera (*Erioptera*) *fusculenta* Edwards, 1938

Material examined. Kotayk: NW of Artavaz, Marmarik R. (site 6), 26.viii.2015, 3 ♂ 1 ♀; Kotayk: Hrazdan Sewage Treatment Plant, Hrazdan R. (site 7), 27.viii.2015, 5 ♂; Kotayk: SW of Hrazdan Reservoir, tributary of Hrazdan R. (site 12), 27.viii.2015, 1 ♂; Kotayk: near Artavaz, Marmarik R. (site 10), 27.viii.2015, 1 ♀; Kotayk: Meghradzor, behind railway, tributary of Marmarik R. (site 8), 27.viii.2015, 1 ♂; Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 3 ♂; Ararat: Garni, below Garni Temple, Azat R. (site 1), 31.viii.2015, 5 ♂; Lori: Meghvahovit, road H31, small steppe brook (site 16), 2.ix.2015, 1 ♀; Lori: N of Gosh, Getik R. (site 31), 4.ix.2015, 6 ♂ 5 ♀; Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 5 ♂ 2 ♀;

Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 8 ♂ 2 ♀; Shirak: between Aghvoik and Ardenis, tributary of Akhurian R. (site 21), 3.ix.2015, 1 ♀; Shirak: E of Torosgyugh, tributary of Akhurian R. (site 22), 3.ix.2015, 2 ♂.

Distribution. Europe; Georgia, Armenia, Azerbaijan, Turkey, Israel; Turkmenia.

Erioptera (*Erioptera*) *lutea* Meigen, 1804

Material examined. Kotayk: NW of Artavaz, Marmarik R. (site 6), 26.viii.2015, 1 ♂; Kotayk: between Marmarik and Aghavnadzor, Marmarik R. (site 13), 26.viii.2015, 1 ♀; Kotayk: Hrazdan Sewage Treatment Plant, Hrazdan R. (site 7), 27.viii.2015, 1 ♂; Kotayk: between Marmarik and Aghavnadzor, tributary of Marmarik R. (site 4), 27.viii.2015, 1 ♀; Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♂; Tavush: below Jukhtakvank Monastery, (site 26), 29.viii.2015, 1 ♀; Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♀; Lori: N of Dzoraget, tributary of Pambak R. (site 17), 1.ix.2015, 1 ♂; Lori: Meghvahovit, road H31, small steppe brook (site 16), 2.ix.2015, 3 ♀; Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 1 ♂ 1 ♀; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♂ 1 ♀.

Distribution. Europe; Georgia, Armenia, Azerbaijan, Turkey, Israel, ?Iran; Central Asia; West Siberia.

Erioptera (*Mesocyphona*) *bivittata* (Loew, 1873)

Material examined. Lori: N of Pushkin, tributary of Dzoraget R. (site 18), 3.ix.2015, 1 ♂.

Distribution. Europe; Azerbaijan, Turkey, Israel, Iran; Central Asia, Mongolia; West Siberia, East Siberia. First record from Armenia.

Hoplolabis (*Parilisia*) *iranica* (Alexander, 1973)

Material examined. Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 4 ♂ 2 ♀.

Distribution. Russia (North Caucasus); Georgia, Azerbaijan, Iran. First record from Armenia.

Ilisia maculata (Meigen, 1804)

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 2 ♂; Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 1 ♀; Shirak: E of Torosgyugh, tributary of Akhurian R. (site 22), 3.ix.2015, 3 ♂ 1 ♀.

Distribution. Europe; Georgia, Armenia, Azerbaijan, Turkey, Iran.

Molophilus (*Molophilus*) *lackschewitzianus habetatus* Savchenko, 1976

Material examined. Tavush: E of Haghartsin, tributary of Aghstev R. (site 29), 29.viii.2015, 1 ♂.

Distribution. Russia (North Caucasus); Georgia, Armenia.

Remark. Possibly a valid species.

Molophilus (*Molophilus*) *obscurus* (Meigen, 1818)

Material examined. Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 2 ♂.

Distribution. Europe; Morocco; Georgia, Armenia, Turkey, Cyprus, Lebanon, Israel.

Molophilus (*Molophilus*) *ochraceus* (Meigen, 1818)

Material examined. Lori: N of Dzoraget, tributary of Pambak R. (site 17), 1.ix.2015, 2 ♂.

Distribution. Europe; Georgia, Azerbaijan, Turkey. First record from Armenia.

Molophilus (*Molophilus*) *propinquus* (Egger, 1863)

Material examined. Tavush: N of Gosh, Getik R. (site 31), 4.ix.2015, 10 ♂ 3 ♀.

Distribution. Europe; Morocco; Georgia, Turkey; West Siberia, East Siberia, Far East of Russia. First record from Armenia.

Molophilus (*Molophilus*) *pleuralis* de Meijere, 1920

Material examined. Kotayk: NW of Artavaz, Marmarik R. (site 6), 26.viii.2015, 3 ♂; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 2 ♂.

Distribution. Europe; Georgia, Azerbaijan, Turkey, Cyprus, Israel, Iran; Central Asia; as far east as Far East of Russia. First records from Armenia.

Molophilus (*Molophilus*) *stroblianus decoloratus* Savchenko, 1978

Material examined. Kotayk: Meghradzor, below "Gold Mine", tributary of Marmarik R. (site 9), 27.viii.2015, 2 ♂ 2 ♀; Tavush: W of Dilijan, Bldan R. (site 28),

28.viii.2015, 3 ♂ 1 ♀; Tavush: below Jukhtakvank Monastery, (site 26), 29.viii.2015, 1 ♀; Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 4 ♂ 4 ♀.

Distribution. Ukraine, Russia (North Caucasus); Georgia, Armenia, Azerbaijan. First records since original description.

Remark. Possibly a valid species.

Ormosia (*Ormosia*) *cuspidata* Savchenko, 1973

Material examined. Lori: N of Dzoraget, tributary of Pambak R. (site 17), 1.ix.2015, 1 ♂.

Distribution. ?European Russia (southeast); Georgia. First record from Armenia.

Ormosia (*Ormosia*) *hederae* (Curtis, 1835)

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♀; Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 2 ♀; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♂; Shirak: E of Torosgyugh, tributary of Akhurian R. (site 22), 3.ix.2015, 1 ♂.

Distribution. Europe; Georgia, Azerbaijan, Turkey; Tajikistan. First records from Armenia.

Rhabdomastix (*Rhabdomastix*) *filata* Starý, 2004

Material examined. Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 1 ♂ 1 ♀.

Distribution. Bulgaria, Greece, Russia (North Caucasus); Georgia, Armenia, Turkey, Lebanon. First record since original description.

Symplecta (*Symplecta*) *hybrida* (Meigen, 1804)

Material examined. Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♀.

Distribution. Nearctic (Canada, USA, Greenland); widespread in Palaearctic, including Europe; North Africa; Georgia, Armenia, Azerbaijan, Turkey, Lebanon, Israel, Iran; Central Asia, Mongolia; as far east as North Korea, Japan and China; Oriental (India, Nepal, Pakistan).

Subfamily Limoniinae

Achyrolimonia decemmaculata (Loew, 1873)

Material examined. Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♀; Tavush: NW of Teghut, tributary of Aghstev R. (site 32), 29.viii.2015, 1 ♀.

Distribution. Europe; Georgia, Armenia, Azerbaijan, Iran.

Antocha (*Antocha*) *vitripennis* (Meigen, 1830)

Material examined. Kotayk: between Marmarik and Aghavnadzor, tributary of Marmarik R. (site 4), 27.viii.2015, 1 ♂; Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♀ 1 ♂.

Distribution. Europe; Turkey, Israel; Afghanistan. First records from Armenia and Transcaucasia

Dicranomyia (*Dicranomyia*) *circassica* Lackschewitz, 1941

Material examined. Tavush: car park on road M4, tributary of Aghstev R. (site 27), 4.ix.2015, 1 ♂.

Distribution. So far only known from North Caucasus and Georgia. First record from Armenia.

Dicranomyia (*Dicranomyia*) *didyma* (Meigen, 1804)

Material examined. Kotayk: E of Hankavan, Marmarik R. (site 5), 26.viii.2015, 1 ♀; Kotayk: N of Solak, Hrazdan R. (site 11), 27.viii.2015, 1 ♂; Ararat: nr. Lanjazat, Azat R. (site 2), 31.viii.2015, 1 ♀; Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 1 ♀; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♀.

Distribution. Europe; Morocco, Algeria; Georgia, Armenia, Azerbaijan, Turkey, Iran; Afghanistan, Mongolia, ?China.

Dicranomyia (*Dicranomyia*) *longipennis* (Schummel, 1829)

Material examined. Kotayk: Meghradzor, behind railway, tributary of Marmarik R. (site 8), 27.viii.2015, 4 ♂, 1 ♀.

Distribution. Nearctic (Canada, USA); widespread in Palaearctic, including Europe; Georgia, Azerbaijan, ?Syria, Iran; Central Asia, Mongolia; as far east as Far East of Russia and Japan; Oriental (India). First record from Armenia.

Dicranomyia (*Dicranomyia*) *melanantha* Savchenko, 1984

Material examined. Kotayk: between Marmarik and Aghavnadzor, tributary of Marmarik R. (site 4), 27.viii.2015, 1 ♀; Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 2 ♂ 1 ♀; Lori: Meghvahovit, road H31, small steppe brook (site 16), 2.ix.2015, 6 ♂ 1 ♀; Shirak: NE of Musayelyan, tributary of Akhurian R. (site 23), 2.ix.2015, 1 ♂; Tavush: car park on road M4, tributary of Aghstev R. (site 27), 4.ix.2015, 1 ♂.

Distribution. France (Corsica), Russia (North Caucasus); Georgia, Azerbaijan, ?Lebanon. First records from Armenia.

Dicranomyia (*Dicranomyia*) *modesta* (Meigen, 1818)

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♂; Lori: NE of Geghasar, Pambak R. (site 19), 3.ix.2015, 1♀; Tavush: N of Gosh, Getik R. (site 31), 4.ix.2015, 1 ♂.

Distribution. Nearctic (Canada, USA, Greenland); widespread in Palaearctic, including Europe; Georgia, Armenia, Azerbaijan, Turkey, Iran; Central Asia, Mongolia; as far east as Far East of Russia and Japan.

Dicranomyia (*Dicranomyia*) *pallidinota* Starý, 2009

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♂.

Distribution. Bulgaria, Greece, France (Corsica); Lebanon, Syria. First record from Armenia and Transcaucasia; first record since original description.

Dicranomyia (*Dicranomyia*) *pontica* Lackschewitz, 1941

Material examined. Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♂; Lori: W of Vahagnadzor, Zamanlu R. (site 14), 1.ix.2015, 2 ♂ 1 ♀.

Distribution. So far only known from North Caucasus and Georgia. First records from Armenia.

Dicranomyia (*Numantia*) *fusca* (Meigen, 1804)

Material examined. Kotayk: near Artavaz, Marmarik R. (site 10), 27.viii.2015, 1 ♂; Kotayk: between Marmarik and Aghavnadzor, tributary of Marmarik R. (site 4), 27.viii.2015, 2 ♂; Lori: road H23 to Pushkin Pass, small brook (site 20), 3.ix.2015, 1 ♂.

Distribution. Nearctic (Canada, USA); Europe; Georgia, Azerbaijan, Turkey, Iran; Far East of Russia, Japan. First records from Armenia.

Dicranoptycha livescens Loew, 1871

Material examined. Tavush: E of Matosavank Monastery (site 30), 29.viii.2015, 1 ♀; Tavush: E of Haghartsin, tributary of Aghstev R. (site 29), 29.viii.2015, 1 ♂.

Distribution. Europe, except for northern countries. First records from Armenia and Transcaucasia.

Limonia hercegovinae (Strobl, 1898)

Material examined. Tavush: W of Dilijan, Bldan R. (site 28), 28.viii.2015, 1 ♂; Tavush: below Jukhtakvank Monastery, (site 26), 29.viii.2015, 1 ♂ 1 ♀; Tavush: NW of Teghut, tributary of Aghstev R. (site 32), 29.viii.2015, 1 ♂; Tavush: E of Haghartsin, tributary of Aghstev R. (site 29), 29.viii.2015, 1 ♂; Lori: W of Vahagnadzor, Zamanlu R. (site 14), 1.ix.2015, 2 ♂; Lori: road H23 to Pushkin Pass, small brook (site 20), 3.ix.2015, 1 ♀.

Distribution. Europe, except for northern countries; Morocco; Azerbaijan, Turkey, Iran. First records from Armenia.

Limonia macrostigma (Schummel, 1829)

Material examined. Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 1 ♂; Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♂.

Distribution. Europe; Morocco; Georgia, Azerbaijan, Turkey, Cyprus; Central Asia; as far east as Far East of Russia, and ?North Korea; Oriental (Pakistan). First records from Armenia.

Limonia stigma (Meigen, 1818)

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♂; Lori: Lermontov, tributary of Aghstev R. (site 15), 1.ix.2015, 1 ♂.

Distribution. Europe. First records from Armenia and Transcaucasia.

Metalimnobia (*Metalimnobia*) *quadrinotata* (Meigen, 1818)

Material examined. Kotayk: E of Hankavan, Marmarik R. (site 5), 26.viii.2015, 1 ♂.

Distribution. Europe; Kirghizia, Mongolia; West Siberia, East Siberia, Far East of Russia. First record from Armenia and Transcaucasia.

Rhipidia (*Rhipidia*) *maculata* Meigen, 1818

Material examined. Gegharkunik: Tsovagyugh, nr. Sevan L. (site 3), 29.viii.2015, 1 ♂.

Distribution. Nearctic (Canada, USA); widespread in Palaearctic, including Europe; Georgia; Mongolia; as far east as Far East of Russia, China, and Japan; Oriental (China). First record from Armenia.

Family Pediciidae

Dicranota (*Dicranota*) *crassicauda* Tjeder, 1972

Material examined. Shirak: Zuygaghbyur, meanders of tributary of Akhurien R. (site 25), 2.ix.2015, 1 ♂; Shirak: E of Torosgyugh, tributary of Akhurian R. (site 22), 3.ix.2015, 1 ♂.

Distribution. Finland, Norway, Sweden; Kazakhstan, Tajikistan. First records from Armenia and Transcaucasia.

Dicranota (*Paradicranota*) *landrocki* Czižek, 1931

Material examined. Shirak: NW of Amasia, tributary of Akhurian R. (site 24), 2.ix.2015, 1 ♂.

Distribution. Europe, except for northern countries; Morocco; Georgia, Armenia, Azerbaijan, Lebanon; Tajikistan.

Dicranota (*Paradicranota*) *subtilis* Loew, 1871

Material examined. Tavush: vicinity of Parz L. (site 33), 28.viii.2015, 1 ♂; Tavush: below Jukhtakvank Monastery, (site 26), 29.viii.2015, 1 ♂; Lori: Meghvahovit, road H31, small steppe brook (site 16), 2.ix.2015, 1 ♂.

Distribution. Europe; Georgia, Armenia, Azerbaijan.

***Pedicia* (*Amalopis*) *occulta* (Meigen, 1830)**

Material examined. Lori: road H23 to Pushkin Pass, small brook (site 20), 3.ix.2015, 1 ♂.
Distribution. Europe; Georgia, Armenia, Azerbaijan, Turkey, Cyprus, Lebanon.

Discussion

A total of 38 species of Limoniidae and four species of Pediciidae are recorded from Armenia. Of these, 27 species of Limoniidae and one species of Pediciidae represent the first records for Armenia. These are the following: *Paradelphomyia* (*O.*) *brevifurca*, *P.* (*O.*) *fuscula*, *P.* (*O.*) *senilis*, *Phylidorea* (*P.*) *ferruginea*, *Pseudolimnophila* (*P.*) *melanura*, *P.* (*P.*) *sepium*, *Erioconopa symplectoides*, *Erioptera* (*M.*) *bivittata*, *Hoplolabis* (*P.*) *iranica*, *Molophilus* (*M.*) *ochraceus*, *M.* (*M.*) *pleuralis*, *M.* (*M.*) *propinquus*, *Ormosia* (*O.*) *cuspidata*, *O.* (*O.*) *hederae*, *Antocha* (*A.*) *vitripennis*, *Dicranomyia* (*D.*) *circassica*, *D.* (*D.*) *longipennis*, *D.* (*D.*) *melanantha*, *D.* (*D.*) *pallidinota*, *D.* (*D.*) *pontica*, *D.* (*N.*) *fusca*, *Dicranoptycha livescens*, *Limonia hercegovinae*, *L. macrostigma*, *L. stigma*, *Metalimnobia* (*M.*) *quadrinotata*, *Rhipidia* (*R.*) *maculata*, and *Dicranota* (*D.*) *crassicauda*. Seven species of Limoniidae and one species of Pediciidae are new to the whole Transcaucasia, viz. *Paradelphomyia* (*O.*) *fuscula*, *Pseudolimnophila* (*P.*) *melanura*, *Antocha* (*A.*) *vitripennis*, *Dicranomyia* (*D.*) *pallidinota*, *Dicranoptycha livescens*, *Limonia stigma*, *Metalimnobia* (*M.*) *quadrinotata*, and *Dicranota* (*D.*) *crassicauda*. Four species/subspecies are here recorded for the first time since their original descriptions, viz. *Pseudolimnophila* (*P.*) *melanura*, *Molophilus* (*M.*) *stroblianus decoloratus*, *Rhabdomastix* (*R.*) *filata*, and *Dicranomyia* (*D.*) *pallidinota*.

Altogether 50 species of Limoniidae and five species of Pediciidae were previously known to occur in Armenia (Oosterbroek 2015). Our records increase the number of Armenian species to 83, 77 species of Limoniidae and six species of Pediciidae.

Checklist of Limoniidae and Pediciidae of Armenia

species new to Armenia are marked with an asterisk (*)

Limoniidae: Limnophilinae

1. *Afrolimnophila minima* (Savchenko, 1971)
2. *Dicranophragma* (*Brachylimnophila*) *nemorale* (Meigen, 1818)
3. *Dicranophragma* (*Mixolimnomyia*) *rufulum* (Savchenko, 1979)
4. *Eloeophila maculata* (Meigen, 1804)
5. *Hexatoma* (*Cladolipes*) *haiasana* Savchenko, 1972
6. *Hexatoma* (*Hexatoma*) *gaedii* (Meigen, 1830)
7. *Limnophila* (*Limnophila*) *pictipennis* (Meigen, 1818)

8. **Paradelphomyia* (*Oxyrhiza*) *brevifurca* Savchenko, 1976
9. **Paradelphomyia* (*Oxyrhiza*) *fuscula* (Loew, 1873)
10. **Paradelphomyia* (*Oxyrhiza*) *senilis* (Haliday, 1833)
11. **Phylidorea* (*Phylidorea*) *ferruginea* (Meigen, 1818)
12. *Pseudolimnophila* (*Pseudolimnophila*) *lucorum* (Meigen, 1818)
13. **Pseudolimnophila* (*Pseudolimnophila*) *melanura* Savchenko, 1984
14. **Pseudolimnophila* (*Pseudolimnophila*) *sepium* (Verrall, 1886)

Limoniidae Chioneinae

15. *Ellipteroides* (*Ptilostenodes*) *omissus* (Lackschewitz, 1940)
16. **Erioconopa symplectoides* (Kuntze, 1914)
17. *Erioconopa trivialis* (Meigen, 1818)
18. *Erioptera* (*Erioptera*) *fusculenta* Edwards, 1938
19. *Erioptera* (*Erioptera*) *lutea* Meigen, 1804
20. **Erioptera* (*Mesocyphona*) *bivittata* (Loew, 1873)
21. *Gonomyia* (*Gonomyia*) *basilobata* Alexander, 1975
22. *Gonomyia* (*Gonomyia*) *conoviensis* Barnes, 1924
23. *Gonomyia* (*Gonomyia*) *lucidula* de Meijere, 1920
24. *Gonomyia* (*Gonomyia*) *papposa* Savchenko, 1983
25. *Hoplolabis* (*Eurasicesa*) *amseliana* (Nielsen, 1961)
26. **Hoplolabis* (*Parilisia*) *iranica* (Alexander, 1973)
27. *Hoplolabis* (*Parilisia*) *yezoana* (Alexander, 1924)
28. *Idiocera* (*Idiocera*) *laterospina* (Alexander, 1975)
29. *Idiocera* (*Idiocera*) *pulchripennis* (Loew, 1856)
30. *Ilisia maculata* (Meigen, 1804)
31. *Molophilus* (*Molophilus*) *lackschewitzianus hebetatus* Savchenko, 1976
32. *Molophilus* (*Molophilus*) *obscurus* (Meigen, 1818)
33. **Molophilus* (*Molophilus*) *ochraceus* (Meigen, 1818)
34. **Molophilus* (*Molophilus*) *pleuralis* de Meijere, 1920
35. *Molophilus* (*Molophilus*) *politonigrus* Savchenko, 1983
36. **Molophilus* (*Molophilus*) *propinquus* (Egger, 1863)
37. *Molophilus* (*Molophilus*) *stroblianus decoloratus* Savchenko, 1978
38. *Molophilus* (*Molophilus*) *urodontus* Savchenko, 1978
39. **Ormosia* (*Ormosia*) *cuspidata* Savchenko, 1973
40. *Ormosia* (*Ormosia*) *fascipennis* (Zetterstedt, 1838)
41. **Ormosia* (*Ormosia*) *hederae* (Curtis, 1835)
42. *Ormosia* (*Ormosia*) *longispina* Savchenko, 1983
43. *Phyllolabis ghilarovi* Savchenko, 1983
44. *Rhabdomastix* (*Rhabdomastix*) *eugeni* Stary, 2004
45. *Rhabdomastix* (*Rhabdomastix*) *filata* Stary, 2004
46. *Symplecta* (*Psiloconopa*) *stictica* (Meigen, 1818)
47. *Symplecta* (*Symplecta*) *hybrida* (Meigen, 1804)

Limoniidae: Limoniinae

48. *Achyrolimonia decemmaculata* (Loew, 1873)
49. *Antocha* (*Antocha*) *libanotica* Lackschewitz, 1940
50. **Antocha* (*Antocha*) *vitripennis* (Meigen, 1830)
51. **Dicranomyia* (*Dicranomyia*) *circassica* Lackschewitz, 1941
52. *Dicranomyia* (*Dicranomyia*) *didyma* (Meigen, 1804)
53. *Dicranomyia* (*Dicranomyia*) *chorea* (Meigen, 1818)
54. **Dicranomyia* (*Dicranomyia*) *longipennis* (Schummel, 1829)
55. *Dicranomyia* (*Dicranomyia*) *lucida* de Meijere, 1918
56. **Dicranomyia* (*Dicranomyia*) *melanantha* Savchenko, 1984
57. *Dicranomyia* (*Dicranomyia*) *modesta* (Meigen, 1818)
58. **Dicranomyia* (*Dicranomyia*) *pallidinota* Starý, 2009
59. **Dicranomyia* (*Dicranomyia*) *pontica* Lackschewitz, 1941
60. *Dicranomyia* (*Glochina*) *transsilvanica* Lackschewitz, 1928
61. *Dicranomyia* (*Melanolimonia*) *caledonica* Edwards, 1926
62. *Dicranomyia* (*Melanolimonia*) *morio* (Fabricius, 1787)
63. **Dicranomyia* (*Numantia*) *fusca* (Meigen, 1804)
64. *Dicranoptycha fuscescens* (Schummel, 1829)
65. **Dicranoptycha livescens* Loew, 1871
66. *Dicranoptycha recurvispina* Savchenko, 1974
67. *Limonia caucasica* Lackschewitz, 1940
68. *Limonia eos* Stary & Savchenko, 1976
69. *Limonia flavipes* (Fabricius, 1787)
70. **Limonia hercegovinae* (Strobl, 1898)
71. **Limonia macrostigma* (Schummel, 1829)
72. *Limonia nubeculosa* Meigen, 1804
73. **Limonia stigma* (Meigen, 1818)
74. *Limonia subaequalis* Savchenko, 1979
75. *Metalimnobia* (*Metalimnobia*) *quadrimaculata* (Linnaeus, 1760)
76. **Metalimnobia* (*Metalimnobia*) *quadrinotata* (Meigen, 1818)
77. **Rhipidia* (*Rhipidia*) *maculata* Meigen, 1818

Pediciidae

78. **Dicranota* (*Dicranota*) *crassicauda* Tjeder, 1972
79. *Dicranota* (*Ludicia*) *iranensis* (Alexander, 1975)
80. *Dicranota* (*Paradicranota*) *landrocki* Czižek, 1931
81. *Dicranota* (*Paradicranota*) *subtilis* Loew, 1871
82. *Pedicia* (*Amalopis*) *occulta* (Meigen, 1830)
83. *Tricyphona* (*Tricyphona*) *immaculata* (Meigen, 1804)

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